

Notice of Allowability	Application No.	Applicant(s)	
	09/354,500	SCHERMER ET AL.	
	Examiner	Art Unit	
	Marianne P. Allen	1647	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to response filed 11/17/06 and interview held 11/27/06.
2. ☒ The allowed claim(s) is/are 1-6, 8-15, and 17-18 renumbered as 1-16, respectively.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

EXAMINER'S AMENDMENT

An extension of time under 37 CFR 1.136(a) is required in order to make an examiner's amendment which places this application in condition for allowance. During a telephone conversation conducted on 12/8/06, Patricia Sheehan requested an extension of time for 1 MONTH(S) and authorized the Director to charge Deposit Account No. 03-1237 the required fee of \$330.00 for this extension and authorized the following examiner's amendment. Applicant has already paid for a one month extension of time in the after final response dated 11/17/06. This extension of time for 1 additional month will extend the time for response to the Office action dated 7/17/06 by two months to 12/17/06. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

Claims 7 and 16 have been cancelled.

Claims 1 and 10 have been amended based on original claims 1, 7, 10, and 16; Figures 7-8; the specification description of Figures 7-8 at page 5, line 21, through page 6, line 15; and page 8, lines 16-19.

1. (currently amended) A method for automatically creating crosstalk-corrected data of a microarray wherein crosstalk is caused by overlapping dye emission spectra, the method comprising:

providing a microarray substrate having three or more calibration dye spots, each of the calibration dye spots comprising a single pure dye;

for each of the calibration dye spots, generating a dye image containing at least one of the calibration dye spots for each of a plurality of output channels;

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for each of the calibration dye spots, measuring an output of each of the output channels to obtain output measurements;

computing a set of correction factors [based on ratios of] from the output measurements by computing crosstalk ratios based on spot brightness values for each of the calibration dye spots on each of the output channels wherein the spot brightness value includes the crosstalk contribution of all of the combinations of excitation wavelengths and dyes;

applying the set of correction factors to quantitation data obtained from the generated microarray images containing spots having three or more dyes with excitation or emission spectra to obtain crosstalk-corrected data; and

displaying or storing in memory said crosstalk-corrected data.

10. (currently amended) A system for automatically creating crosstalk-corrected data of a microarray wherein crosstalk is caused by overlapping dye emission spectra, the system comprising:

a microarray substrate having three or more calibration dye spots, each of the calibration dye spots comprising a single pure dye;

an imager having a plurality of output channels wherein for each of the calibration dye spots the imager generates a dye image containing at least one of the calibration dye spots for each of the output channels;

[means for measuring an output of each of the output channels for each of the calibration dye spots to obtain output measurements;

means for computing a set of correction factors based on ratios of the output measurements; and

means for applying the set of correction factors to quantitation data obtained from the generated microarray images containing spots having three or more dyes with excitation or emission spectra to obtain crosstalk-corrected data]

and

a computer programmed to

(a) obtain output measurements from each of the output channels for each of the calibration dye spots;

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(b) compute a set of correction factors from the output measurements by computing crosstalk ratios based on spot brightness values for each of the calibration dye spots on each of the output channels wherein the spot brightness value includes the crosstalk contribution of all of the combinations of excitation wavelengths and dyes;

(c) apply the set of correction factors to quantitation data obtained from generated microarray images containing spots having three or more dyes with excitation or emission spectra to obtain crosstalk-corrected data; and


(d) display or store in memory said crosstalk-corrected data.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marianne P. Allen whose telephone number is 571-272-0712.

The examiner can normally be reached on Monday-Friday, 5:30 am - 2:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brenda Brumback can be reached on 571-272-0961. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Marianne P. Allen
Primary Examiner
Art Unit 1647
12/8/06